CONTENTS

GENERAL SESSION

Looking Ahead
O. Hale Fletchall, President 7

What Can We Do to Help the Soybean Industry
Dan McAllister 8

WEED CONTROL IN FIELD CROPS

Effect of Preemergence Herbicides on Weed Control in Corn and Carryover on Succeeding Crops
G. A. Wicks and C. R. Fenster 12

Postemergence Atrazine Treatments for Weed Control in Corn
John D. Nalewaja 12

Postemergence Atrazine-Dalapon-Oil Mixtures on Corn
R. Behrens, G. R. Miller and A. L. Darwent 13

Oil-Water Emulsion as a Carrier for Herbicides
O. G. Russ and K. C. Feltner 13

Effect of Atrazine and Oil on Weed Control in Sorghum Across Nebraska in 1968
G. A. Wicks, O. C. Burnside, and C. R. Fenster 14

Methods of Applying Herbicides for Weed Control in Grain Sorghum
O. G. Russ and K. C. Feltner 15

Preemergence and Postemergence Herbicides for Weed Control in Sorghum Across Nebraska
C. R. Fenster, G. A. Wicks, and O. C. Burnside 15

Influence of Weed Competition on Sorghum Growth
O. C. Burnside and G. A. Wicks 17

Preemergence Herbicidal Treatments for Small Grain Nurseries
M. M. Schreiber, F. L. Patterson, and J. F. Schafer 17

Progress Report on Selective Weed Control in Wheat and Barley with MSMA
A. D. Klosterboer and C. A. Burleson 17

Wild Oats Control with Granular Triallate
H. A. Friesen 17

The Response of Winter Wheat to Herbicides
L. R. Robison and C. R. Fenster 19

Weeds and Their Control in Sunflowers
John D. Nalewaja 21

Phenmedipham Weed Control Responses in Sugar Beets
E. F. Sullivan, P. J. Decker and T. L. Dollerschell 22

Field Bindweed Control with Crops, Cultivation and 2,4-D
Lyle Derschied and J. F. Stritzke 24

Post-Emergent Chemical Treatments for Annual Weed Control in Soybeans
Cyril A. Kust 24

Effects of Postemergence Chloroxuron Treatments on Weed-Free Soybeans
Robert N. Andersen 27

Factors Influencing Weed Control and Soybean Injury with Chloroxuron
Wayne C. Carlson and L. M. Wax 27

Systems of Weed Control for Soybean Production Using Variable Row Widths
W. G. Lovely and D. W. Staniforth 28

Response of Soybeans to 2,4-D, Dicamba, and Picloram
L. M. Wax, L. A. Knuth, and F. W. Slife 29

Wild Cane Control in Soybeans
T. S. Schilling and O. G. Russ 29

Evaluating Herbicides in a Soybean-Weed Nursery
Robert N. Andersen 29

Harvesting Efficiency in Corn, Sorghum, and Soybeans as Influenced by Weed Growth
O. C. Burnside, G. A. Wicks, D. D. Warnes, B. R. Somerhalder, and S. A. Weeks 30

WEED CONTROL IN HORTICULTURAL CROPS AND TURF

Selectivity of Nitrofen Among Cabbage Varieties
H. J. Hopen 31

The Influence of DCPA on Stand Establishment of Field Seeded Onions
David S. Huland and Donald N. Johnston 31

Weed Control in Cucurbits
G. F. Warren 31

Potato Vine Killing with Des-i-cate in the Red River Valley
F. E. Temby 32

Activated Carbon Root Dips to Protect Against Herbicide Injury to Transplants
B. A. Kratky and G. F. Warren 33

Deactivation of Bensulide Treated Soil by Activated Carbon
R. F. Huey and R. Y. Yeh 33

CONTENTS

GENERAL SESSION

Looking Ahead
O. Hale Fletchall, President 7

What Can We Do to Help the Soybean Industry
Dan McAllister 8

WEED CONTROL IN FIELD CROPS

Effect of Preemergence Herbicides on Weed Control in Corn and Carryover on Succeeding Crops
G. A. Wicks and C. R. Fenster 12

Postemergence Atrazine Treatments for Weed Control in Corn
John D. Nalewaja 12

Postemergence Atrazine-Dalapon-Oil Mixtures on Corn
R. Behrens, G. R. Miller and A. L. Darwent 13

Oil-Water Emulsion as a Carrier for Herbicides
O. G. Russ and K. C. Feltner 13

Effect of Atrazine and Oil on Weed Control in Sorghum Across Nebraska in 1968
G. A. Wicks, O. C. Burnside, and C. R. Fenster 14

Methods of Applying Herbicides for Weed Control in Grain Sorghum
O. G. Russ and K. C. Feltner 15

Preemergence and Postemergence Herbicides for Weed Control in Sorghum Across Nebraska
C. R. Fenster, G. A. Wicks, and O. C. Burnside 15

Influence of Weed Competition on Sorghum Growth
O. C. Burnside and G. A. Wicks 17

Preemergence Herbicidal Treatments for Small Grain Nurseries
M. M. Schreiber, F. L. Patterson, and J. F. Schafer 17

Progress Report on Selective Weed Control in Wheat and Barley with MSMA
A. D. Klosterboer and C. A. Burleson 17

Wild Oats Control with Granular Triallate
H. A. Friesen 17

The Response of Winter Wheat to Herbicides
L. R. Robison and C. R. Fenster 19

Weeds and Their Control in Sunflowers
John D. Nalewaja 21

Phenmedipham Weed Control Responses in Sugar Beets
E. F. Sullivan, P. J. Decker and T. L. Dollerschell 22

Field Bindweed Control with Crops, Cultivation and 2,4-D
Lyle Derschied and J. F. Stritzke 24

Post-Emergent Chemical Treatments for Annual Weed Control in Soybeans
Cyril A. Kust 24

Effects of Postemergence Chloroxuron Treatments on Weed-Free Soybeans
Robert N. Andersen 27

Factors Influencing Weed Control and Soybean Injury with Chloroxuron
Wayne C. Carlson and L. M. Wax 27

Systems of Weed Control for Soybean Production Using Variable Row Widths
W. G. Lovely and D. W. Staniforth 28

Response of Soybeans to 2,4-D, Dicamba, and Picloram
L. M. Wax, L. A. Knuth, and F. W. Slife 29

Wild Cane Control in Soybeans
T. S. Schilling and O. G. Russ 29

Evaluating Herbicides in a Soybean-Weed Nursery
Robert N. Andersen 29

Harvesting Efficiency in Corn, Sorghum, and Soybeans as Influenced by Weed Growth
O. C. Burnside, G. A. Wicks, D. D. Warnes, B. R. Somerhalder, and S. A. Weeks 30

WEED CONTROL IN HORTICULTURAL CROPS AND TURF

Selectivity of Nitrofen Among Cabbage Varieties
H. J. Hopen 31

The Influence of DCPA on Stand Establishment of Field Seeded Onions
David S. Huland and Donald N. Johnston 31

Weed Control in Cucurbits
G. F. Warren 31

Potato Vine Killing with Des-i-cate in the Red River Valley
F. E. Temby 32

Activated Carbon Root Dips to Protect Against Herbicide Injury to Transplants
B. A. Kratky and G. F. Warren 33

Deactivation of Bensulide Treated Soil by Activated Carbon
R. F. Huey and R. Y. Yeh 33

WEED CONTROL IN FORESTS, SHELTERBELTS, AND ORNAMENTAL OR FOREST NURSERIES
The Breakdown of Dacthal in Soil and Its Effect on Certain Processes of Soil Microbes
H. T. Bone and J. E. Kuntz 34
Planted Hardwoods Respond to Weed Control on Bottomland Sites
W. R. Byrnes and G. Murray 34
A New Approach to Oak Wilt Control
J. E. Kuntz, V. M. G. Nair, and K. Venn 36
Low Volume Aerial Applications of Herbicides for Brush Control
H. J. Hovind, S. E. Banash, M. L. Morehouse 37

WHAT'S NEW FROM INDUSTRY
New Concept for Spray Tank Adjuvants
Frank S. Black 39
MSMA—A Conifer and Noxious Weed Killer
J. A. Ignatoski 39
A New Low Volume Band Applicator
D. A. Bush 39
Post-Emergence Weed Control in Onions with Tenoran
Fred H. Bauermeister 40
Maloran and Preforan—Two New Herbicides from DIBA
R. B. Seely 41
Progress Towards More Reliable Soybean Yields & Profits
S. E. Ainsworth 41
Glytac for Spot Control of Volunteer Corn in Soybeans
L. G. Butler 43

EXTENSION
Nebraska Weeds in Color
Emory W. Nelson and Ellsworth Carlson 44
Use of Weed Seedlings as a Teaching Aid
Larry W. Mitich 45
Color Chart for Estimating Organic Matter in Mineral Soils in Illinois
John Alexander and Ellery L. Knake 45
Role of the Federal Extension Service Weed Control Program
Robert A. Wearne 46
New Developments in Programmed Teaching
Samuel N. Postlethwaite 46

EQUIPMENT AND HERBICIDE APPLICATION METHODS FOR WEED CONTROL
Significance of Incorporation by Ro-Wheel—A Report from Users
Thomas E. Clague 47
Profiles in Spraying
R. E. Ogle 49
Aerial Application of DCPA
J. A. Ignatoski and L. F. Cherry 49
Low Volume (0.5-5.0 GPA) Applicators for Preemergence Herbicides
L. E. Bode and M. R. Gebhardt 49
Spray Characteristics of a New Low Volume Applicator
John C. Siemens and Stanley R. McLane 51
Injection of Herbicides for Soil Placement and to Study Site of Uptake in the Field
J. W. Schrader, J. D. Doll and W. F. Meggitt 51

WEED CONTROL IN PASTURES, FORAGE CROPS AND RANGELANDS
Bromoxynil, Chloroxynil and Phenoxy Compounds for Control of Weeds in Legume Seedlings
Elroy J. Peters 54
Symposium—Herbicide Use in Legume Establishment—The Pros and Cons
Moderator—M. M. Schreiber 54
Herbicide Use in Legume Establishment
Cyril A. Kust 55
Herbicides for Establishing Legumes in the Southern Corn Belt
Elroy J. Peters 55

RESIDENT EDUCATION
Curricula in Crop Protection
Leo E. Bendixen, E. K. Alban, D. E. Herr, E. W. Stroube, and A. C. Waldron 56
Curricula in Plant Protection: A Plant Pathologist's Viewpoint
James E. Kuntz 56
Curricula in Crop Protection—An Entomologist's Viewpoint
Glen E. Lehker 56

REGULATORY

Weed Control Through Agricultural Service Boards
S. C. Powers 58

Musk Thistle Control Under Nebraska's Mandatory Weed Law
Ellsworth Carlson 59

Timely Topics
Edward H. Hansen 60

PHYSIOLOGICAL, ECOLOGICAL AND EDAPHIC ASPECTS OF WEED CONTROL

Weeds of Increasing Importance in Saskatchewan Grain Fields
T. V. Beck 64

Several New Foxtails in the Midwest
M. M. Schreiber and L. R. Oliver 65

Effect of Time of Giant Foxtail Removal From Corn and Soybeans
Ellery L. Knake and Fred W. Slife 66

Herbicide Residue When Applied to Sorghum in a Winter Wheat-Sorghum-Fallow Rotation
G. A. Wicks, C. R. Fenster, and O. C. Burnside 66

Dissipation and Leaching of Atrazine in a Minnesota Soil After Repeated Applications
A. L. Darwent and Richard Behrens 66

The CO2 Uptake of Sorghum Leaves as Affected by Atrazine and Carriers
C. E. Stymiest and J. F. Stritzke 69

Evidences of Ground Water Contamination with Herbicides
J. D. Furrer, O. C. Burnside, C. R. Fenster, and F. N. Anderson 69

The Influence of Ehtrel on Assimilate and Herbicide Translocation in Established Johnsongrass
Richard J. Hull 70

INDUSTRIAL, NON-CROP AND AQUATIC WEED CONTROL

Asphalts with Incorporated Herbicides for Weed Control in Roadjoints
A. E. Dudeck 71

Maximizing Weed Control on the Santa Fe Railway
D. H. Yazell 71

Seasonal Spot Treatment Control of Johnsongrass on Highway Roadsides from Single Applications of Non-Selective Herbicides
J. T. Griffin and K. N. Franks 72

2,4-D + DSMA Possible Substitute for 2,4,5-T
J. A. Ignatoski 72

The Need for Drift Control with Phenoxy and Tordon Herbicides on Highways
C. S. Williams and H. D. Bidlack 73

Response of Johnsongrass to Dalapon Applied at Different Times of Day
Jerry Caulder and O. Hale Fletchall 76

Further Observations on Aquatic Plant Control in Illinois
Robert C. Hiltibran 76

RESEARCH

Herbicide Useage on Major Field Crops in the North Central Region, 1964 and 1966
Herman W. Delvo 78

The Role of the U.S. Department of Agriculture in Evaluation Research on Herbicides
W. M. Phillips 85

The Attitude of State and Provincial Workers Toward Herbicide Evaluation
K. P. Buchholtz 87

Who Will Test Coded, Experimental, and U.S.D.A. Approved Herbicides?
Hugh C. Palmer 88

Who Will Be Testing Coded, Experimental, and U.S.D.A. Approved Herbicides?
Joe E. Pankaskie 89

PRESENTATION OF HONORARY MEMBERSHIP 91
PRESENTATION OF COUNTY EXTENSION AND REGULATORY AWARDS 92
MEETING OF BOARD OF DIRECTORS 93
REGISTRATION LIST—NCWCC 103
LIST OF SUSTAINING MEMBERS 111